

The logo for the Scholar Showcase, featuring a stylized purple 'S' shape composed of three curved segments.

SCHOLAR SHOWCASE

UNIVERSITY OF SOUTH CAROLINA AIKEN

Gregg Graniteville Library

13-14 April 2017

**Welcome to the 10th Annual
Scholar Showcase**

**Co-sponsored by
USC Aiken Center for Research Excellence
USC Aiken Center for Teaching Excellence**



UNIVERSITY OF
SOUTH CAROLINA

AIKEN

Scholar Showcase

Schedule of Events

Thursday, April 13, 2017

**3:00pm -4:00pm Registration (t-shirt pickup) & Poster Hanging
Reception & Group Photo (3:45pm)**

4:00pm Keynote Speaker

Michael J. Barresi, Smith College, Northampton, MA
“Merging Research and Teaching with Course-Based Research Experiences
to Tackle Wicked Problems and Foster Deep Student Learning.”

Friday, April 14, 2017

Oral Presentations

9:00am – 2:00pm

Poster Presentations

2:00pm – 3:00pm

3:15pm – 4:15pm

Poster Session 1 (Odd Numbered Presentations)

Poster Session 2 (Even Numbered Presentations)

Chancellor’s Remarks

3:00-3:15pm

Oral Presentations

Session A: Gregg Graniteville Room

Dr. Meredith Elzy and Dr. Jessica Sullivan, Presiding

- 9:00 Being an Adolescent During the Chinese Cultural Revolution
Alicia Hines
Mentor: Dr. Claxon
- 9:15 Inside Look at Freshmen-Sophomore Internships
Collytte Cederstrom
Mentor: Dr. William Harpine
- 9:30 Can the Length of Multiple Choice Answers Predict the Correct Answer?
Kelci Gardner, Erin Bunts, Abbi Glitman
Mentor: Dr. Bing Han
- 9:45 Comparison Between a Physical and Psychological Stressor
Ifeoluwa Ekundayo
Mentor: Dr. Keri Weed
- 10:00 Mortality and Fertility Changes in Hungary Between 1984 and 2013
Alicia Hines
Mentor: Dr. Deanna Gore
- 10:15 The Influence of Perceived Control Over Task Difficulty on Coping with Math Anxiety
Christine Hartmann
Mentor: Dr. Keri Weed
- 10:30 Sporting Activities Allow People to Become More Social
Victoria Caldwell, Brielle Jungblut, David Lankster
Mentor: Dr. Bing Han
- 10:45 Effects of Diabetes on Working Memory
Taylor Coleman
Mentor: Dr. Alexandra Roach
- 11:00 Break
- 11:15 Patterns of Induced Dormancy in *Aegiolops triuncialis*
Julia Phuong Mi Vu
Mentor: Dr. Andy Dyer
- 11:30 Identifying Human Fecal Pollution in the Horse Creek Watershed using Quantitative PCR
Kara Lynn Norris
Mentor: Dr. Michele Harmon
- 11:45 Aspects of Queen Triggerfish Reproductive Biology
Hillary Rich
Mentor: Dr. Virginia Shervette

- 12:00 The Effects of Sports Related Head-Impact on Neurocognitive Functions and Balance
Shaquanda D. Ross-Simmons
Mentor: Dr. Michelle Vieyra
- 12:15 Determining the Sequences Involved in *mPing* Transposition
Jazmine I. Benjamin
Mentor: Dr. Nathan Hancock
- 12:30 Transgenerational Plasticity: A Possible Mechanism for Rapid Adjustment in Invasive Species
Melissa Groleau
Mentor: Dr. Andrew Dyer
- 12:45 Population Demographics of Sunfishes in the Edisto River
Rosie Curiel
Mentor: Dr. Virginia Shervette
- 1:00 The Effects of Caffeine and Sugar on Adipose Tissue Accumulation, Memory, and Anxiety in Rats
London Vickers
Mentor: Dr. Michelle Vieyra

Session B: Old Veterans Center
Dr. Philip Mason and Dr. Jeremy Culler, Presiding

- 10:15 The Poetic Voice of Child Labor in Industrial Britain: Its Literary and Social Contexts
Sarah Marie Elizabeth Williamson
Mentor: Dr. Julie Wise
- 10:30 Behavioral Patterns, Competition & Anonymity
Stuart Walker
Mentor: Dr. Ben Triana
- 10:45 Anonymous Video Game Communities & Social Behavior
Stuart Walker
Mentor: Dr. Bing Han
- 11:00 Break
- 11:15 Honors Capstone: Equity in Reading Education and Students Most at Risk
Taylor Harling
Mentor: Dr. Ashlee Horton
- 11:30 Gender Difference in Cell-Phone Addiction
Laney Moore, Aubrey Owens, Joseph Higgenbottom
Mentor: Dr. Bing Han

- 11:45 Capturing What You Can't Usually See: The Underwater Nature Photography of Charlie Hamilton James and Paul Nicklin
Michaela E. Day
Mentor: Dr. William Harpine
- 12:00 Adaptation of International Students at USC Aiken
Lauren Carver, Adrielle Cooper, Talia Brandenburg-Mays
Mentor: Dr. Bing Han
- 12:15 Cultural Impact on Romantic Relationships in the Novels *Wild Ginger* by Anchee Min and *Scarlet Song* by Mariama Bâ
Victoria Lynn Bush
Mentor: Dr. Bill Claxon
- 12:30 Break
- 12:45 The Battle of Bachelorhood and Domesticity in William Gilmore Simms's *Castle Dismal*
Meredith Grace Hawcroft
Mentor: Dr. Todd Hagstette
- 1:00 The Effects of Speaker Credibility in Race Relations: A Study of Two Speeches
Davonte' Jenkins
Mentor: Dr. William Harpine
- 1:15 The Role of Social Media in Romantic Relationships
Destiny Lynn Combs, Cyndle Leigh McGuinness, Alanna Jessica Berrie
Mentor: Dr. Bing Han
- 1:30 Social Media Usage and Communication Skills: A Relational Study
Taylor Weatherford, William Palmer, Alexander Edward Prescott
Mentor: Dr. Bing Han
- 1:45 The Differences in Goal-Achieving in Male and Female Sports Teams
Joshua Imholte, Hunter Lathrop, Atiya Fields
Mentor: Dr. Bing Han

Session C: Back Library Area

Dr. Kristina Ramstad and Dr. Nick Marshall, Presiding

- 9:00 The Development of a Plasmid Based System to Test Anti-HIV1 siRNAs that Target the Accessory Protein VIF
Rebecca Beaudry
Mentor: Dr. William Jackson
- 9:15 Generating *mef2ca* and *mef2cb* Transgenic Zebrafish Lines Using BAC-mediated Recombination
Kenneth Glenn
Mentor: Dr. April DeLaurier

- 9:30 Understanding the Function of *kdm1a* using CRISPR/Cas9 in Zebrafish
Frances Loyo
Mentor: Dr. April DeLaurier
- 9:45 Generating a HIV-1-dependent Vector to Deliver a Suicide Gene
Natalie M. Arthur
Mentor: Dr. William H. Jackson
- 10:00 Honors Capstone: Zebrafish Mutagenesis
Tiana LaTrell Chandler
Mentor: Dr. Nathan Hancock
- 10:15 Honors Capstone: HIV-dependent Expression of an Anti-Retroviral Gene
Erin McLaughlin
Mentor: Dr. William Jackson
- 10:30 Honors Capstone: Creating a Transgenic Line to Study the Role of Osteoclasts in Zebrafish Development
Brianna Snelling
Mentor: Dr. April DeLaurier
- 10:45 Testing Strategies to Produce Targeted Insertion of *mPing*
Mary E. Roby
Mentor: Dr. Nathan Hancock
- 11:00 Break
- 11:15 The Friendship Theorem
Alyson Cromer
Mentor: Dr. Mohammad Hailat
- 11:30 Honors Capstone: The Implementation of Holographic Technologies to Assist Study and Learning Techniques
Jonathan Hoyle
Mentor: Dr. Zhenheng Li
- 11:45 pH Dependence of 2,4'-dihydroxyacetophenone Dioxygenase
Jason Weeks
Mentor: Dr. Ken Roberts
- 12:00 Los Estados Andinos: An Exercise in Economic Integration
William Bradford Prothman-Roberts
- 12:15 Honors Capstone: The Chinese 'One Belt One Road' and 'AIIB' Infrastructure Initiatives: An Analysis
William Bradford Prothman-Roberts
Mentor: Dr. David Harrison
- 12:30 Abundance in a World of Scarcity: The Vision of Peter Diamandis
Grant L. Robinson
Mentor: Dr. William Harpine

12:45 Honors Capstone: An Exploratory Study of College Students' Attitudes Toward Spanking
Ayesha Jihad
Mentor: Dr. Melencia Johnson

1:00 Honors Capstone: The Effect of Sleep on USCA Nursing Students' Exam Performance
Aleisa Baksh
Mentor: Dr. Mary Gaffney

Poster Session

Poster 1. Determining the optimum DNA extraction technique for avian tissues
Haley Stone and Michaela Day
Mentor: Dr. Kristina Ramstad

Poster 2. Death of Men in Charleston
Breona White
Mentor: Dr. Andy Dyer

Poster 3. Examination of Ranavirus sequence variation within and among wetlands and amphibian species on the Savannah River Site
Mariela Muniz-Gonzalez
Mentor: Dr. Kristina Ramstad

Poster 4. Domestic female workers who died of a Cerebral Hemorrhage in Aiken, SC in 1944 and 1954
Kimberly Williams
Mentor: Dr. Andrew Dyer

Poster 5. Effects of community structure on the prevalence of ranavirus and chytridiomycosis in amphibians
Michael Anzalone
Mentor: Dr. Kristina Ramstad

Poster 6. Identifying the Fluvial Tidal Transition Zones on the South Eastern Flood Plain
Colby Hunter and Fincher Roberts
Mentor: Dr. Jessica Sullivan

Poster 7. Remote monitoring of nest attendance and fledging success in threatened wood storks
Michaela Elizabeth Day and Rachel Elizabeth Saxon
Mentor: Dr. Kristina Ramstad

Poster 8. Do Infectious Diseases Discriminate?
Joseph R Smith
Mentor: Dr. Andrew Dyer

Poster 9. "Homicide Watch: Homicides in the Years 1935-26, 1945-46, and 1955-56 in Allendale and Aiken Counties"
Colby Hunter Finch
Mentor: Dr. Andrew Dyer

Poster 10. Insanity by the Sea

Brenda Lynne Pou

Mentor: Dr. Andrew Dyer

Poster 11. The Effects of Land Use Change on Salt Marsh Geomorphology in a Semi-closed Basin

David Hodges

Mentor: Dr. Jessica Sullivan

Poster 12. Tuberculosis Ravages Black Population of Aiken County

Bridgette Dell Sullivan

Mentor: Dr. Andrew Dyer

Poster 13. Impacts of Floodplain Morphology

Joseph R Smith

Mentor: Dr. Jessica Sullivan

Poster 14. Lifespan differences among races and gender in 1940 and 1960

Debbie Stephany Figueroa Orellana

Mentor: Dr. Andrew Dyer

Poster 15. Growing Local: An Anthropological Case Study of Organic Farming in the Central Savannah River Basin

Katie Kule

Mentor: Dr. Troy Wilson

Poster 16. Cause of Death of Women in Child-bearing Years as a Function of Race

Mary E. Lamb

Mentor: Dr. Andrew Dyer

Poster 17. Developing a HIV-1 Dependent Lentiviral Vector that Expresses an Innate Human Anti-Retroviral Gene

Mckenzie Spires

Mentor: Dr. William Jackson

Poster 18. Living to Die, comparing death from infectious deceases and organ failure in Beaufort county (1920s and 1960s)

Arthur Owiriwa

Mentor: Dr. Andrew Dyer

Poster 19. Determining the Optimal Ratio of ORF1 to Transposase for *mPing* Transposition

Reese Nelson King

Mentor: Dr. Nathan Hancock

Poster 20. Are Wood Storks Nest Parasites?

David Hodges

Mentor: Dr. Kristina Ramstad

Poster 21. Analysis of the zebrafish transposable element, *Harbinger3N_DR*, in yeast

Sarah M. Zamiela

Mentor: Dr. Nathan Hancock

Poster 22. Developing and Using *Tol2*-based Activation Tag Constructs for Zebrafish Mutagenesis

Allison Swiecki

Mentor: Dr. Nathan Hancock

Poster 23. *mPing* as a tool for activation tagging in *Danio rerio*

Alec Jones

Mentor: Dr. April DeLaurier

Poster 24. Cloning a reporter plasmid to test a siRNA targeting HIV-1 Vif

Alyssa Smith

Mentor: Dr. William Jackson

Poster 25. Using siRNAs to downregulate HIV-1 Tat expression and decrease viral production in siRNA-protected T lymphocyte populations

Christian Fay

Mentor: Dr. William Jackson

Poster 26. Developing an Activation Tagging System for Wheat Mutagenesis

Amanda Ruth Askins

Mentor: Dr. Nathan Hancock

Poster 27. Determining the role of homologous recombination in replicative transposition of *mPing*

Lisette Payero

Mentor: Dr. Nathan Hancock

Poster 28. T-Bid expression in ptBidTNG(INS2)R to induce Apoptosis in a HIV infected Cell

Johnny Jude Carroll

Mentor: Dr. William Jackson

Poster 29. Product Inhibition in the Reaction Of 2,4'-Dihydroxyacetophenone Dioxygenase

Ineisha Herrington

Mentor: Dr. Kenneth Roberts

Poster 30. Determining the Role of *Ldlrap1a* in Craniofacial Development in Zebrafish

Kali Wiggins

Mentor: Dr. April DeLaurier

Poster 31. The Metal Dependence of 2,4' dihydroxyacetophenone dioxygenase

Ben Hutto

Mentor: Dr. Kenneth Roberts

Poster 32. Cloning an anti-HIV vif siRNA to prevent vif association with APOBEC3G

Kirstyn Denney

Mentor: Dr. William Jackson

Poster 33. Measuring the Solvent-Isotope Effect of Deuterated Water on 2,4'-Dihydroxyacetophenone Dioxygenase

Catherine Haley Cave

Mentor: Dr. Kenneth Roberts

Poster 34. The Systematic Marginalization of Black Male Students

Hannah Elaine Jameson

Mentor: Dr. Deborah McMurtrie

Poster 35. Interdisciplinary Approach to Teaching Elementary Mathematics

Ashley Brooke Addy and Meghan Nicole Gillespie

Mentor: Dr. Bridget Coleman

Poster 36. Comparison of Cardiopulmonary Resuscitation Training and Public Access Automated External Defibrillation (AED) Availability at the University of South Carolina Aiken and Other Universities

Alexandria Rae Ravenell

Mentor: Dr. Christopher DeWitt

Poster 37. Math Learning Centers for Student Achievement Across Disciplines

Kaitlyn Shaw and Megan Wren

Mentor: Dr. Bridget Coleman

Poster 38. Psychiatric Nursing Education and Stigma

Erin McCain

Mentor: Dr. Mary Gaffney

Poster 39. Patient Education and Hospital Readmission Rates

Amber Costner, Payton Slack, and Brooke Lavalley

Mentor: Dr. Mary Gaffney

Poster 40. Candy and Soda for Breakfast: Developing Visual Communication Tools to Promote Healthy Eating

Harli Rose Eggenberger and Brooke Elise Clark

Mentor: Dr. Brian Parr and Ginny Southworth

Poster 41. Exercise and Attention Deficit/ Hyperactivity Disorder: A Review of Literature

Ashley Pavlosky

Mentor: Dr. Brian Parr

Poster 42. The Impact of Homelessness on Medication Compliance

Joshlyn Alexis Shells, Gigi Michelle Turner, and Lauren Ashley Whisenant

Mentor: Dr. Mary Gaffney

Poster 43. Day Shift vs. Night Shift Nursing

Baleigh Ennis, Kayla Calvert, and Kiara Addison

Mentor: Dr. Mary Gaffney

Poster 44. The Investigation of the Relationship Between Types of Pushup and One-repetition Maximum Bench Press Performance.

Kaitlyn Armstrong and Catherine McHale

Mentor: Dr. Andrew Hatchett

Poster 45. Exercise and Symptom Management of Posttraumatic Stress Disorder: A Review of Literature

Carrie Bess Benton

Mentor: Dr. Brian Parr

Poster 46. The Level of Moral Distress in Nursing Students

Sharon Rose Seufert

Mentor: Dr. Mary Gaffney

Poster 47. Role of Exercise in Addiction Treatment: A Review of Literature

Cassidy Donley

Mentor: Dr. Brian Parr

Poster 48. The Effects of Early Mobilization for Mechanically Ventilated Patients

Shelby Rice, Trevor Laird, and Summer Hopkins

Mentor: Dr. Mary Gaffney

Poster 49. Nursing Ratios

Courtney Westbrooke, Magen Luke, Cassie Eubanks, and Billy Swindle

Mentor: Dr. Mary Gaffney

Poster 50. The Effect of BSN Education on Adverse Events

Tori Williams, Makenzie Barbor, and Carlee Creech

Mentor: Dr. Mary Gaffney

Poster 51. Exercise and Memory Loss with Aging: A Review of Literature

Elizabeth Brielle Busbee

Mentor: Dr. Brian Parr

Poster 52. Anxiety Presence During Video Game Play

Crystal Richardson

Mentor: Dr. Laura Swain

Poster 53. Honors Capstone: The Effects of Simulated Versus Actual Resistance Training on Maximal Muscular Strength

Hannah Martin

Mentor: Dr. Brian Parr

Poster 54. Perspective Taking and Self-Other Overlap: How Self-Compassion Mitigates the Negative Effect of Blame on Helping Behavior

Emma Nettles

Mentor: Dr. Adam Pazda

Poster 55. Exercise Performance and Limitations in the Brain: The Central Governor Theory

Jesse Adam Rooker

Mentor: Dr. Brian Parr

Poster 56. Red Clothing Increase Victim Blaming in Cases of Sexual Assault

Sarah Przywara

Mentor: Dr. Adam Pazda

Poster 57. Interdisciplinary Care in Combat Veterans with Traumatic Brain Injury
Kaitlin Swanson, Shawn Epperly, and Sarah Gilbert
Mentor: Dr. Mary Gaffney

Poster 58. Analysis of Reading Interventions for a Group-Centered Prevention Program
Collytte Cederstrom
Mentor: Dr. Adam Pazda

Poster 59. Decreasing Oral Mucositis
Kristy Christ
Mentor: Dr. Mary Gaffney

Poster 60. Investigating the Degree to Which Ostracizing a Member of a Despised Outgroup Undermines Psychological Need Satisfaction.
Emily Shakal and Emma Nettles
Mentor: Dr. Adam Pazda

Poster 61. Nurse Residency Programs and Job Retention
Madison Stoll, Evelyn Pittman, Kailyn Williams and Sarah Stokely
Mentor: Dr. Mary Gaffney

Poster 62. Helping Students for the Years to Come
Ashley Conklin, Matthew Haslinger, and Collytte Cederstrom
Mentor: Dr. Elaine Clanton Harpine

Poster 63. Moral Distress in Nursing
Meghan Whitfield, Alexis Oldham, and Lindsay Scurry
Mentor: Dr. Mary Gaffney

Poster 64. Changes in Reading Ability after Intervention
Sara P. Puckett and Matthew K. Haslinger
Mentor: Dr. Elaine Clanton Harpine, Dr. Adam Pazda, and Dr. William Harpine

Poster 65. Exercise and Symptom Management of Autism Spectrum Disorder: A Review of Literature
Taylor Stratton
Mentor: Dr. Brian Parr

Poster 66. Video Games & its Effects on Social Life
Nile Goings, Christopher Emmanuel LaFrank, and Graham Hatfield
Mentor: Dr. Bing Han

Poster 67. Is This Your Card? The Effect of Deception on Physiological Response During the Concealed Information Test
Iesha Knight, Leonela Salabarria, and Andre George Simmond
Mentor: Dr. Keri Weed

Poster 68. Therapeutic Resources for Children with Autism Spectrum Disorder in the Central Savannah River Area
Emily Jones
Mentor: Dr. Michelle Petrie

Poster 69. Comparing Collegiate Classroom Performance by Major and First Generation Status

Katlin Pugh, Heather Ard, and Colin Nettles

Mentor: Dr. Laura Swain and Dr. Meredith Elzy

Poster 70. Honors Capstone: Traveling Interdisciplinary Literacy Trunk (TILT) Integrating Within SC History

Katelyn Oliver Spragg

Mentor: Dr. Deborah McMurtrie

Poster 71. Effects of High-Definition Transcranial Direct Current Stimulation (HD-tDCS) on Inhibitory Control

Mason T. Rodriguez

Mentor: Dr. Alexandra Roach

Poster 73. Investigating Gaze Attention to Colors as a Function of Extraversion: An Eye-Tracking Study

Tabitha Mathis and Gabrielle Gray

Mentor: Dr. Adam Pazda



Dr. Michael J. Barresi

We are pleased to have Dr. Michael Barresi as our keynote speaker. Dr. Barresi is an Associate Professor of Biology at Smith College in Northampton Massachusetts.

Dr. Barresi teaches a variety of undergraduate courses in biology ranging from introductory cell biology to upper level developmental biology. Dr. Barresi's research focuses on the molecular and cellular mechanisms that determine the way in which nervous systems form – his model organism for these studies is the zebrafish.

Importantly, Dr. Barresi is a strong proponent of the value of undergraduate research. His presentation will describe the nature of his work and his use of Course-based Research Experiences in advancing his research goals.

For generations of students, the laboratory course has been one of the primary opportunities to gain "hands-on" experience conducting science. Despite the practical training students receive in these laboratory courses, they have historically lacked the inclusion of novel inquiries and true research objectives. In addition, the ever-increasing pressure for undergraduates to gain legitimate research experience prior to graduation often surpasses the capacity of faculty research labs. Course-based Research Experiences (CRE) present one viable solution to meet the student demands for practical training in research while also achieving advances in one's scholarship and deeper learning for the students. Professor Barresi has been offering successful CRE type laboratories since 2005. During his presentation Prof. Barresi will describe two different CREs focused on Developmental Biology and the advantages and disadvantages between offering these CREs to first-year students or to upper-level students.

Acknowledgements

We wish to thank USC Aiken alumna, Ms. Celeste Suggs, for her generous contribution and continuous support of Research Day and Scholar Showcase.



“I do believe that exposure educates us—exposure to information, to experiences, to different types of people of ways of living and to Research Day presentations—all these exposures give us different views. In sorting and comprehending these views, we are learning.”

We also wish to thank the following:

Scholar Showcase Organizing Committee:

Prof. Jack Benjamin
Dr. Edward Callen
Dr. C. Nathan Hancock
Dr. Michele Harmon
Dr. Timothy Lintner
Dr. William Jackson

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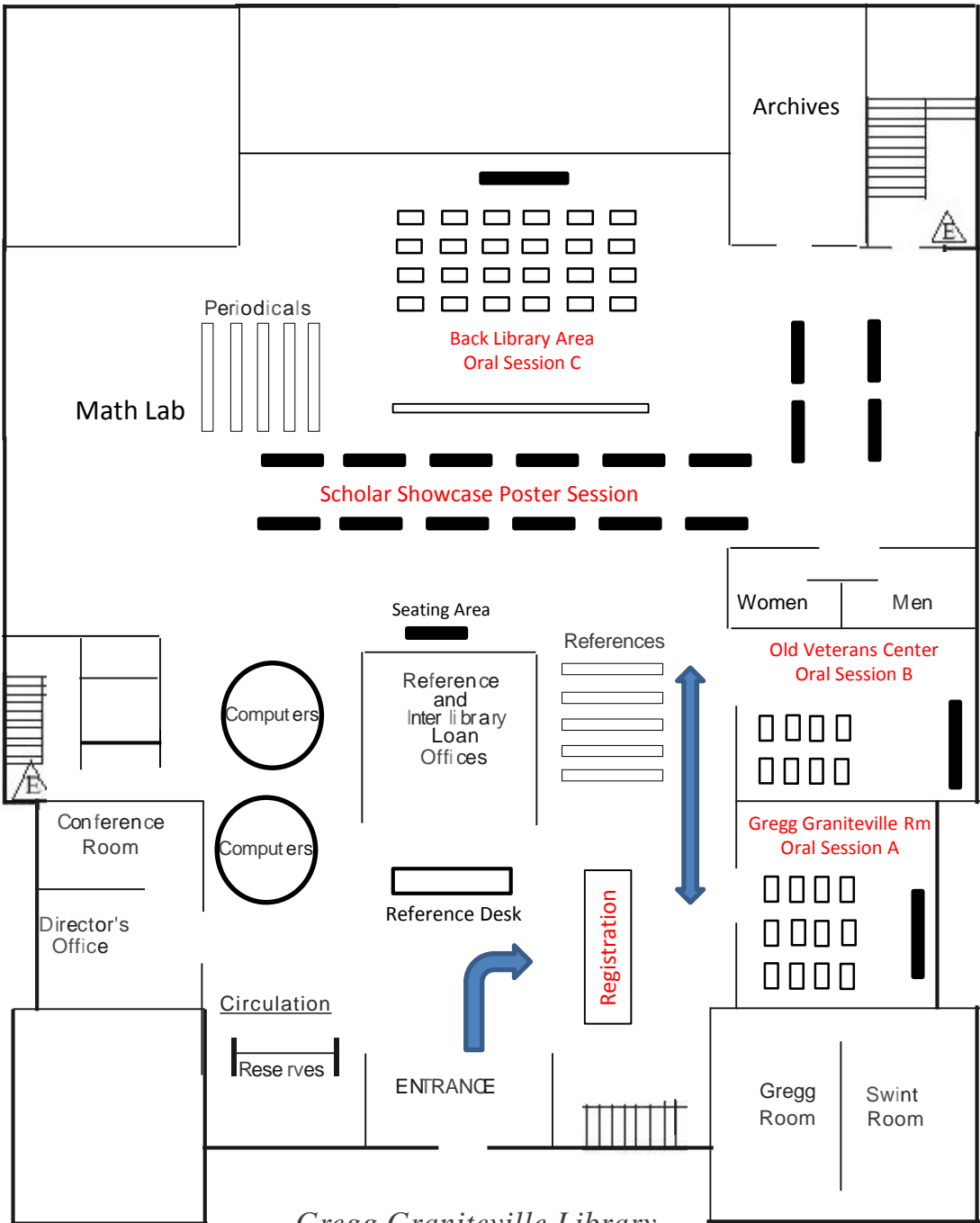
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